

We claim

1) An image acquisition apparatus connected to at least one USB equipped computer, comprising:

a) image input means for inputting image data into a control circuit within  
5 said apparatus;

b) transmittal means for sending said image data from said control circuit through the USB system of said computer;

c) interface means for said control circuit to receive instructions from, and send data to, control software on said computer.

10 2) An apparatus as in claim 1, wherein said image input means comprises at least one of a Compact Flash Memory card reader, a Smart Media card reader, a PC or PCMCIA Card reader, a Memory Stick reader, a Multi Media card reader, a Secure Digital card reader, and a IBM Microdrive reader;

15 3) An apparatus as in claim 2, further comprising simple control means for directing complex operations of said control circuit and said control software directly from the outside of said apparatus, said means comprising:

a) at least one button on said apparatus wherein said button has a function determined by said control software;

20 b) an interface for said button to direct said control circuit and said control software.

4) An apparatus as in claim 3, wherein said image input means further comprising a scanner, said scanner comprising:

25 a) a transparent platform for placing items to be scanned, said items comprising photographs, documents, or drawings, and said platform having rectangular dimensions;

b) optical scanning hardware for scanning images of said items, wherein said hardware includes a scanning module slidably installed inside said housing, said scanning module being approximately as wide as one of the dimensions of said transparent platform, said scanning module comprising:

30 i) a mechanism and assembly for moving said module along one of the axes of said transparent platform;

ii) a bottom light source for emitting light towards said items,  
iii) an image converter for converting said image of the item into a digital image.

c) a closeable top with dimensions slightly larger than the dimensions of said transparent platform, hingedly attached to said housing so that said top covers said transparent platform when closed.

5 5) An image processing method in an image acquisition apparatus connected to at least one USB equipped computer, comprising:

a) an image input step for inputting image data into a control circuit within  
10 said apparatus;

b) a transmittal step for sending said image data from said control circuit through the USB system of said computer;

c) an interface step for said control circuit to receive instructions from, and send data to, control software on said computer.

15 6) A method as in claim 5, wherein said image input step comprises detecting the insertion of the appropriate media into at least one of a Compact Flash Memory card reader, a Smart Media card reader, a PC or PCMCIA Card reader, a Memory Stick reader, a Multi Media card reader, a Secure Digital card reader, and a IBM Microdrive reader;

20 7) A method as in claim 6, further comprising simple control steps for directing complex operations of said control circuit and said control software directly from the outside of said apparatus, said steps comprising:

a) providing at least one button on said apparatus wherein said button has a function determined by said control software;

b) providing an interface for said button to direct said control circuit and said  
25 control software.

8) A method as in claim 7, wherein said image input step further comprises providing a scanner, said scanner comprising:

a) a transparent platform for placing items to be scanned, said items comprising photographs, documents, or drawings, and said platform having rectangular  
30 dimensions;

b) optical scanning hardware for scanning images of said items, wherein said

hardware includes a scanning module slidably installed inside said housing, said scanning module being approximately as wide as one of the dimensions of said transparent platform, said scanning module comprising:

i) a mechanism and assembly for moving said module along one of  
5 the axes of said transparent platform;

ii) a bottom light source for emitting light towards said items,

iii) an image converter for converting said image of the item into a digital image.

c) a closeable top with dimensions slightly larger than the dimensions of said  
10 transparent platform, hingedly attached to said housing so that said top covers said transparent platform when closed.

9) A method comprising:

a) persistently monitoring any monitorable input means of an image acquisition apparatus;

b) determining whether said input means have image-containing media therein;

c) determining the quantity of image data files in said media;

d) selecting at least one image data file from said media;

e) transmitting said at least one image data file from said image acquisition  
20 apparatus to a computer;

f) providing said image data file to a consumer-selected computer application.

10) A method as in claim 9 further comprising:

a) persistently monitoring any buttons on said image acquisition apparatus;

25 b) determining whether any said buttons have been pressed;

c) selecting the appropriate consumer-selected computer application to which to provide said image data based on the predefined functions of said buttons.

11) A method as in claim 10 further comprising:

30 a) determining whether there is a scanner associated with said image acquisition apparatus;

b) selecting a set of scanning criteria as chosen by the consumer; and

c) scanning an item on the transparent platform of said scanner at said selected set of scanning criteria where there is no media card in said input means.

12) A method as in claim 11 wherein said consumer-selected computer application is selected from

5 an application to transfer said image data files to an Internet-based professional photograph printing company,

an application that launches said consumer's e-mail program and attaches said image data files to an e-mail created by said e-mail program,

10 an application that launches said consumer's fax program and prepares a fax with said image in said fax for said consumer to address,

an application to open a printer selection menu to allow said consumer to print said image on a selected printer,

an application that archives said image data files in a convenient manner, and

15 an application that presents the image data file to any other application on said consumer's computer for said any other application to use as an input into said any other application.

13) A method as in claim 12 wherein said consumer can selectively configure said computer application choices.

20 14) Computer-readable media comprising one or more computer-executable instruction sets that, when executed, direct a computer to:

a) persistently monitor any monitorable input means of an image acquisition apparatus;

b) determine whether said input means have image-containing media therein;

c) determine the quantity of image data files in said media;

25 d) select at least one image data file from said media;

e) transmit said at least one image data file from said image acquisition apparatus to a computer;

f) provide said image data file to a consumer-selected computer application.

30 15) Computer-readable media comprising one or more computer-executable instruction sets as in claim 14 that, when executed, direct a computer to:

a) persistently monitor any buttons on said image acquisition apparatus;

- b) determine whether any said buttons have been pressed;
- c) select the appropriate consumer-selected computer application to which to

provide said image data based on the predefined functions of said buttons.

16) Computer-readable media comprising one or more computer-executable  
5 instruction sets as in claim 15 that, when executed, direct a computer to:

- a) determine whether there is a scanner associated with said image acquisition apparatus;

- b) select a set of scanning criteria as chosen by the consumer; and

- c) scan an item on the transparent platform of said scanner at said selected  
10 set of scanning criteria where there is no media card in said input means.

17) Computer-readable media comprising one or more computer-executable  
instruction sets as in claim 13 that, when executed, direct a computer to:

- a) launch an application that allows the consumer to customize which applications are launched with which parameters at the press of which buttons on said image acquisition apparatus.

18) Computer-readable media comprising one or more computer-executable  
instruction sets as in claim 14 wherein:

- a) said persistent monitoring occurs in a process boundary with the kernel driver, low level driver, and high level user interface;

- b) said program launching application runs in a process separated from said persistent monitoring process; and

- c) said applications launched by said program launching applications run in their own processes.

19) Computer-readable media comprising one or more computer-executable  
25 instruction sets as in claim 17 wherein:

- a) said persistent monitoring occurs in a process boundary with the kernel driver, low level driver, and high level user interface;

- b) said program launching application runs in a process separated from said persistent monitoring process;

- c) said applications launched by said program launching applications run in their own processes; and

d) said button configuration application runs in its own process, separate from said persistent monitoring process.

20) An electronic ordering method for image products comprising:

a) providing the customer with the ability to select images for said product ordering from images on said customer's computer;

b) accessing electronically a current price table from the product supplier;

c) accessing electronically a listing of special offers from said product supplier;

d) inputting said customer's order of said product, including said customer's selection of special offers;

e) determining whether said customer qualifies for said special offers;

f) selectively applying said special offers that said customer qualifies for to said customer's order; and

g) providing said customer with a new order total price.

21) Computer-readable media comprising one or more computer-executable instructions that, when executed, direct a computer to:

a) provide the customer with the ability to select images for said product ordering from images on said customer's computer;

b) access electronically a current price table from the product supplier;

c) access electronically a listing of special offers from said product supplier;

d) input said customer's order of said product, including said customer's selection of special offers;

e) determine whether said customer qualifies for said special offers;

f) selectively apply said special offers that said customer qualifies for to said customer's order; and

g) provide said customer with a new order total price.

22) Computer-readable media comprising one or more computer-executable instructions as in claim 21 wherein said instructions are run in a separate process boundary without other applications.